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Indian Standard SPECIFICATION FOR TABLE, OPERATION, GENERAL PURPOSES (NON-HYDRAULIC)

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Indian Standard SPECIFICATION FOR TABLE, OPERATION, GENERAL PURPOSES (NON-HYDRAULIC)

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Indian Standard

SPECIFICATION FOR TABLE, OPERATION, GENERAL PURPOSES (NON-HYDRAULIC)

0. FOREWORD

- 0.1 This Indian Standard was adopted by the Indian Standards Institution on 15 November 1971, after the draft finalized by the Hospital Equipment Sectional Committee had been approved by the Consumer Products and Medical Instruments Division Council.
- 0.2 The formulation of Indian Standards on hospital equipment has been taken up at the instance of the Advisory Committee for the Development of Surgical Instruments, Equipment and Appliances, Government of India.
- 0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS: 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard lays down constructional and performance requirements of manually controlled, all purpose operation table.

2. TERMINOLOGY

- 2.0 For the purpose of this standard, the following definition shall apply.
- 2.1 General Purpose Operation Table A surgical operation table capable of providing essential positions for various surgical procedures.

3. MATERIALS

- 3.1 Tube ERW (Electric resistance butt welded mild steel tube) conforming to IS: 2039-1964†.
- 3.2 Sheets, Rods, Flats Mild steel, cold-rolled or hot-rolled quality.

^{*}Rules for rounding off numerical values (revised).

[†]Specification for steel tubes for bicycle and allied purposes,

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- 3.3 Other components like gearing system shall be made from materials which resist wear during normal manipulation.
- 3.4 Handles provided shall be made from well seasoned hard wood free from defects or ebonite or plastics which can stand action of mild acids.
- 3.5 Stainless steel components shall conform to Designation 04Cr19Ni9 or 07Cr19Ni9 of Schedule V of IS: 1570-1961*.

4. SHAPE AND DIMENSIONS

4.1 A typical shape of operation table is shown in Fig. 1.

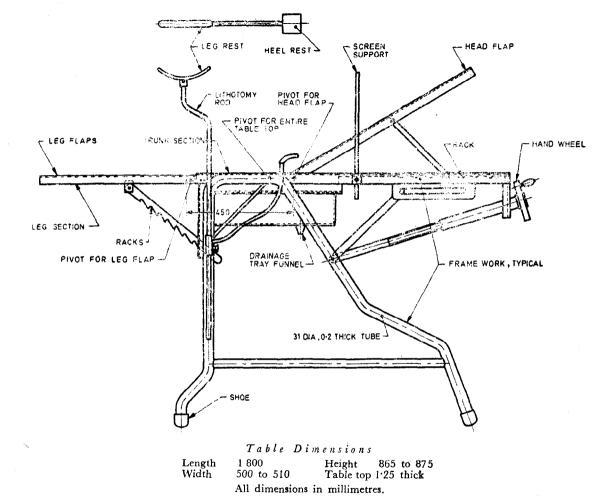
5. CONSTRUCTION

- **5.1 Framework** It shall have framework of continuous lengths of mild steel tubes (as shown in Fig. 1) securely welded to give the desired shape. The floor ends of the tubular framework shall be fitted with metal shoes with rounded edges.
- 5.2 Table Top The table top shall have a minimum of three sections, namely head, trunk and leg section. As for the leg section, it is left to the manufacturer to make it in one or two leg flaps. The entire top shall be capable of satisfying the following requirements:
 - a) The entire table top shall be capable of being tilted to 30° trendelenburg and 20° for reverse trendelenburg positions.
 - b) The head end shall be capable of being raised by 60° and leg end to be capable of dropping by 90°.
 - c) It shall be provided with a perineal cut-out for drainage tray.
- **5.2.1** Head and Leg Sections The head section shall be capable of being raised to 60° from the trunk position. The two flaps of the leg section shall be capable of being lowered to at least 90° from the trunk so as to enable the table top to be used as a chair and also for obtaining other positions. The head and leg sections shall have operating mechanisms so situated as not to interfere with the surgical team. The controls for the head and leg ends shall be on the respective ends.

6. PERFORMANCE REQUIREMENTS

6.1 Base — The construction of the table shall ensure stability of the base. The four metal shoes shall give sufficient rigidity to the table and the table shall not move in any direction.

^{*}Schedules for wrought steels for general engineering purposes.



.Fig. 1 Table, Operation, General Purposes (Non-Hydraulic), Typical

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6.2 Table Top — It shall satisfy the requirements given below:

- a) When a load of 500 N (50 kgf approx) is applied vertically on the extreme edge of the head section, the leg section shall not lift by more than 10 mm.
- b) When a load of 250 N (25 kgf approx) is dropped from a height of 150 mm on to extreme end of the 2 leg flaps, the flaps shall not get dislodged.
- c) Once the accessories are clamped, there shall be no wobble under normal working conditions.

7. WORKMANSHIP AND FINISH

7.1 The various components shall be made accurately to give smooth operation and other performance requirements laid down in 6. All surfaces shall be well finished and shall not have defects, such as pin holes, blisters, blow holes and similar other defects. All edges shall be rounded off. All the three sections comprising the table top, in their normal position, shall be in one plane approximately. The sweeps of head and leg sections shall be true. All welded joints shall have welds fully penetrating and shall be well finished. All non-corrosive metal surfaces (like stainless steel) shall be matt finished. Corrosive surfaces (like steel tubes) shall be painted in accordance with the colours specified in IS: 4033-1968* namely white, off-white or sea-green. Prior to painting, the surface shall be degreased, made rust free, suitably protected by an anti-corrosive primer. either by brushing or spraying and then finished by spraying in stove enamel or air-drying enamel of the specified shade. In every instance each coat shall be separately stoved or air-dried as the case may be. The resulting finish shall be hard and shall not readily chip or flake. The painting shall satisfy the adhesion test given in 6.1.1 of IS: 4033-1968*. Parts which are to be plated shall be plated to Service Grade 2 of IS: 1068-1968† or IS: 4827-1968‡ as the case may be. The handles shall have an easy grip and shall not impart colour or stain to the hand. Wooden handles, if provided, shall be linseed oil coated or varnished.

8. ACCESSORIES

8.1 The table shall be provided with two lithotomy rods duly chromium plated conforming to Service Grade 2 of IS: 1068-1968†.

^{*}General requirements for hospital furniture.

[†]Specification for electroplated coatings of nickel and chromium on iron and steel (first revision).

[‡]Specification for electroplated coatings of nickel and chromium on copper and copper alloys.

- **8.2** The following accessories shall be optional:
 - a) Leg rests two;
 - b) Screen support;
 - c) Rubber mattress -- 25 mm thick, anti-static properties being resistance between 10⁴ ohms and 10⁶ ohms; and
 - d) Heel rests two.

9. INSTRUCTIONS FOR USE AND MAINTENANCE

- **9.1** The table shall be accompanied by instructions manual giving the following information:
 - a) Brief instructions for installation and maintenance (including spare parts) and
 - b) Any other information considered necessary by the manufacturer.

10. MARKING

- 10.1 Each table shall have a name-plate fixed to it showing the following:
 - a) Manufacturer's name, initials or registered trade-mark; and
 - b) Any special instructions for safe handling of the table.
 - 10.1.1 Each table may also be marked with the ISI Certification Mark.

Note — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

11. PACKING

11.1 Each table shall be packed in a well cushioned sturdy case to stand rough handling during transit.

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